

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/10/2011 has been entered.

Response to Amendment

With respect to Applicant's amendment to Claim 1 in regards to 35 U.S.C. 112, rejection with respect to the same has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-6, 8-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garney (US Patent 5412798) in view of Yamauchi et al. (US Patent 5661823).

With regard to claim 1, Garney teaches a method for indicating a current loading status of a removable media device provided for being loaded with at least one removable medium associated with a characteristic feature (Column 6 Line 56: “a method and circuitry for dynamically configuring device drivers of removable system resources”), and the removable media device being connectable to a device for reading and/or writing AV storage media, comprising:

detecting connection or disconnection of the removable media device (Column 13 Line 57: “Card event service routine 1101 is activated when a hardware event is detected by the computer system upon the insertion or removal of a feature card in any socket provided by the computer system”);

updating the current loading status of the removable media device in case a connection or disconnection of the removable media device is detected (Figure 9: Step 1111 indicating card disconnection leading to Step 1127 involving changing the current status of the card. Also, Figure 10: Card Insertion Processing 800 following the detection of a card insertion event, Step 1107/1108 in Figure 9, involving the changing the status of the card in Step B as shown in Figure 11.);

keeping the current loading status of the removable media device if the type of user input is not related to the removable media device (Column 14 Line 35: “if the hardware event causing the activation of card event service routine 1101, is neither a card insertion event nor a card removal event, processing path 1113 is taken to processing block 1117 where the unidentified event is recorded. Processing then terminates at bubble 1131”);

checking whether a characteristic feature of the at least one removable medium loaded in the removable media device has changed (See Figure 10: Card Insertion Processing. Column 14 Line 58: "Decision block 809 tests whether or not the device driver stub for the newly installed card still resides in the computer system RAM based on the device driver stub unique identification");

keeping the current loading status of the removable media device if the characteristic feature of the at least one removable medium loaded in the removable media device has not changed (Column 14 Line 61: "If the stub still resides there, then the device driver stub executable code does not need to be loaded again"); and

updating the current loading status of the removable media device if the characteristic feature of the at least one removable medium loaded in the removable media device has changed (Column 14 Line 65: "If the stub is not still resident, processing path 812 is taken". See Figure 10: Path 812 leading to Bubble 'B' and see also Figure 11: Bubble 'B' leading to Block 919 "Set command 680 to initialize. Set a card Insertion flag in stub data to indicate that a card is inserted in to a socket and accessible to computer system").

With further regard to claim 1, Garney teaches the limitations of claim 1 as described above. Garney does not teach the user input and subsequent operations as described in claim 1. Yamauchi teaches

checking whether a type of user input is related to the removable media device upon occurrence of user input, wherein the user input is not generated by the

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connection or disconnection of the removable media device (Column 50 Line 36: "The editing machine 600 is designed to receive operations of the exclusive keyboard 602a and remote control operation part 602i, display the menu of functions on the display part 602h of the exclusive keyboard 602a, and select a desired function from this menu".

Column 52 Line 3: "in FIG. 90, when the retrieval is selected (step S168) on the main menu, the CPU part 625 changes the screen of display 1 to V2, the menu level to '1' and the menu mode name to 'retrieval' so as to specify the retrieval destination in step S169, and all input sources connected to the editing machine 600 (memory cards 1, 2, HDD, DDD) are displayed");

checking whether the at least one removable medium loaded in the removable media device has changed, if the type of user input is related to the removable media device (Column 44 Line 67: "Pre-processing ... necessary for input and output of data with the memory card 400 and card type connector 504 ... [including] confirmation of ... card type connector 504 ... and selection of bus to be connected with inside are automatically set or confirmed by the CPU before execution of data transfer or after completion of transfer." Further to emphasize that such preprocessing is related to user input, Figure 90 showing 'Retrieval', i.e. data transfer, processing as it relates to Figure 83A showing the CPU operation processing in a data transfer. Still Further to emphasize, Column 48 Line 26: "FIG. 83A ... showing the operation processing of the CPU in data transfer. When started (step S143) by receiving data transfer request, the CPU judges, in step S144, what are the transfer source and transfer destination devices, and whether the transfer format is through, compression or expansion, and in

step S145, pre-processing such as settings necessary for the transfer source and transfer destination device is executed, and the transfer source and transfer destination devices are connected to the data bus and control bus in step S146.”).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have modified the method as disclosed by Garney with the type of user input and subsequent operations as taught by Yamauchi such that it “initializes necessary devices” (Yamauchi Column 50 Line 52).

With regard to claim 2, Garney in view of Yamauchi teaches all the limitations of claim 1 as described above. Garney further teaches wherein the characteristic feature is an identifier of the at least one removable medium (Column 14 Line 58: “Decision block 809 tests whether or not the device driver stub for the newly installed card still resides in the computer system RAM based on the device driver stub unique identification”. See also Figure 4: Device driver stub unique identification 407).

With regard to claim 3, Garney in view of Yamauchi teaches all the limitations of claim 1 as described above. Yamauchi further teaches wherein user input types related to the removable media device are one or more of input command to enter removable media device sub-menu (Column 50 Line 36: “The editing machine 600 is designed to receive operations of the exclusive keyboard 602a and remote control operation part 602i, display the menu of functions on the display part 602h of the exclusive keyboard 602a, and select a desired function from this menu”. Column 50 Line 50: “the CPU part

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625 judges the type and quantity of devices connected to the editing machine 600 in step S161, and reduces possible functions on the basis of the result of judgment, and initializes necessary devices. Meanwhile, the result of judgment of connected devices is ... used in selection of menu". Column 51 Line 29: "when the display function is selected on the main menu, the screen of display 1 becomes as shown in FIG. 88"), input command to navigate within a removable media device sub-menu (Column 51 Line 44: "in the menu level 1, the display output can be specified. This display output is available in four types, menu, standard, processing, and division"), input command to access a removable medium (Column 51 Line 37: "when the memory card 1 is specified, for example, the screen of display 1 changes to level 2, menu mode name 'specification' as shown in FIG. 89"), and input command that generally is preceding an access to a removable medium (Column 52 Line 3: "in FIG. 90, when the retrieval is selected (step S168) on the main menu, the CPU part 625 changes the screen of display 1 to V2, the menu level to '1' and the menu mode name to 'retrieval' so as to specify the retrieval destination in step S169, and all input sources connected to the editing machine 600 (memory cards 1, 2, HDD, DDD) are displayed").

With regard to claim 5, Garney in view of Yamauchi teaches all the limitations of claim 1 as described above. Garney further teaches wherein identifiers of all removable media of a multiscard reader type media device are checked (Column 13 Line 21: "If any feature cards are currently installed in any of the available sockets of the computer

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system, the identity or address of the installed cards is obtained in processing block 711". See Figure 7: Block 711).

With regard to claim 6, Garney in view of Yamauchi teaches all the limitations of claim 1 as described above. Garney further teaches wherein, for a multiscard reader type media device the file structure of all inserted removable media is read and assembled to a single file structure (Column 21 Line 7: "memory area 1700 is depicted as it would appear after Card B, having device driver DD-B, was inserted into slot 2 of the computer system while card A remained inserted in Slot 1. There are two slots in the computer system, therefore device driver stub memory has been allocated to be the size of the two largest feature card device driver stubs. Therefore, in this example, memory area 1700 has been allocated to be five memory units in size. In this way, memory area 1700 can contain DD-A and DD-B simultaneously". See Figure 17a-f).

With regard to claim 8, Garney teaches an apparatus for reading and/or writing AV storage media comprising:

a removable medium having a characteristic feature (Column 9 Line 39: "Device driver stub unique identification 407 is a unique value that identifies the device driver stub and distinguishes the device driver stub from all other device driver stubs."), the removable media device associated with a current loading status (Column 12 Line 26: "Card insertion flag 672 is used to retain an indication of whether the card associated with the device driver stub is inserted or removed." Column 13 Line 23: "If any feature

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cards are currently installed in any of the available sockets of the computer system, the identity or address of the installed cards is obtained in processing block 711.”);

a user input device that receives user input (Figure 1: Removable Feature Card Interface 108 and/or Input Device 104); and

a controller that

detects connection or disconnection of the removable media device (Column 13 Line 57: “Card event service routine 1101 is activated when a hardware event is detected by the computer system upon the insertion or removal of a feature card in any socket provided by the computer system”);

updates the current loading status of the removable media device in case a connection or disconnection of the removable media device is detected (Figure 9: Step 1111 indicating card disconnection leading to Step 1127 involving changing the current status of the card. Also, Figure 10: Card Insertion Processing 800 following the detection of a card insertion event, Step 1107/1108 in Figure 9, involving the changing the status of the card in Step B as shown in Figure 11.);

checks for a change in the characteristic feature of the at least one removable medium loaded in the removable media device when the type of user input is related to the removable media device (See Figure 10: Card Insertion Processing. Column 14 Line 58: “Decision block 809 tests whether or not the device driver stub for the newly installed card still resides in the computer system RAM based on the device driver stub unique identification”), and

updates the current loading status of the removable media device when the characteristic feature of the at least one removable medium loaded in the removable media device is changed (Column 14 Line 65: "If the stub is not still resident, processing path 812 is taken". See Figure 10: Path 812 leading to Bubble 'B' and see also Figure 11: Bubble 'B' leading to Block 919 "Set command 680 to initialize. Set a card Insertion flag in stub data to indicate that a card is inserted in to a socket and accessible to computer system").

With further regard to claim 8, Garney teaches the limitations of claim 8 as described above. Garney does not teach the connector and user input causing subsequent operations as described in claim 8. Yamauchi teaches

a connector for a removable media device having at least one removable medium (Figure 14: Electronic Still Camera having external connector 123 and card insertion connector/port 206. As described in Column 11 Line 8: "an insertion part 206 of memory card 400", and Column 12 Line 66: "a connector part 123 (protected by a lid body not shown in the drawing when not in use) is disposed at one side");

checks whether a type of user input is related to the removable media device upon occurrence of user input, wherein the user input is not generated by the connection or disconnection of the removable media device (Column 50 Line 36: "The editing machine 600 is designed to receive operations of the exclusive keyboard 602a and remote control operation part 602i, display the menu of functions on the display part 602h of the exclusive keyboard 602a, and select a desired function from this menu".

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Column 52 Line 3: “in FIG. 90, when the retrieval is selected (step S168) on the main menu, the CPU part 625 changes the screen of display 1 to V2, the menu level to ‘1’ and the menu mode name to ‘retrieval’ so as to specify the retrieval destination in step S169, and all input sources connected to the editing machine 600 (memory cards 1, 2, HDD, DDD) are displayed”); and

checks for a change of the removable medium (Column 44 Line 67: “Pre-processing ... necessary for input and output of data with the memory card 400 and card type connector 504 ... [including] confirmation of ... card type connector 504 ... and selection of bus to be connected with inside are automatically set or confirmed by the CPU before execution of data transfer or after completion of transfer.” Further to emphasize that such preprocessing is related to user input, Figure 90 showing ‘Retrieval’, i.e. data transfer, processing as it relates to Figure 83A showing the CPU operation processing in a data transfer. Still Further to emphasize, Column 48 Line 26: “FIG. 83A ... showing the operation processing of the CPU in data transfer. When started (step S143) by receiving data transfer request, the CPU judges, in step S144, what are the transfer source and transfer destination devices, and whether the transfer format is through, compression or expansion, and in step S145, pre-processing such as settings necessary for the transfer source and transfer destination device is executed, and the transfer source and transfer destination devices are connected to the data bus and control bus in step S146.”).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have modified the apparatus as disclosed by

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Garney with the connector and user input which causes subsequent operations as taught by Yamauchi in order to “to take out the digital image data ... to [the] outside” (Yamaguchi Column 13 Line 1) such that it “initializes necessary devices” (Yamauchi Column 50 Line 52).

With regard to claim 9, Garney in view of Yamauchi teaches all the limitations of claim 8 as described above. Garney further teaches wherein the characteristic feature is an identifier of the removable medium (Column 9 Line 39: “Device driver stub unique identification 407 is a unique value that identifies the device driver stub and distinguishes the device driver stub from all other device driver stubs.”).

With regard to claim 10, Garney in view of Yamauchi teaches all the limitations of claim 8 as described above. Yamauchi further teaches wherein the user input includes an input command to enter a removable media device's sub-menu (Column 50 Line 36: “The editing machine 600 is designed to receive operations of the exclusive keyboard 602a and remote control operation part 602i, display the menu of functions on the display part 602h of the exclusive keyboard 602a, and select a desired function from this menu”. Column 50 Line 50: “the CPU part 625 judges the type and quantity of devices connected to the editing machine 600 in step S161, and reduces possible functions on the basis of the result of judgment, and initializes necessary devices. Meanwhile, the result of judgment of connected devices is ... used in selection of menu”. Column 51 Line 29: “when the display function is selected on the main menu,

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the screen of display 1 becomes as shown in FIG. 88”), an input command to navigate within a removable media device's sub-menu (Column 51 Line 44: “in the menu level 1, the display output can be specified. This display output is available in four types, menu, standard, processing, and division”), an input command to access a removable medium (Column 51 Line 37: “when the memory card 1 is specified, for example, the screen of display 1 changes to level 2, menu mode name ‘specification’ as shown in FIG. 89”), an input command that precedes access to a removable medium (Column 52 Line 3: “in FIG. 90, when the retrieval is selected (step S168) on the main menu, the CPU part 625 changes the screen of display 1 to V2, the menu level to ‘1’ and the menu mode name to ‘retrieval’ so as to specify the retrieval destination in step S169, and all input sources connected to the editing machine 600 (memory cards 1, 2, HDD, DDD) are displayed”).

With regard to claim 12, Garney in view of Yamauchi teaches all the limitations of claim 8 as described above. Garney further teaches wherein the removable media device is a multiscard removable media device (Figure 2: Removable Media Device 201 having Removable Media 211 and 213); and wherein the controller checks identifiers of all removable media of the multiscard removable media device (Column 13 Line 23: “If any feature cards are currently installed in any of the available sockets of the computer system, the identity or address of the installed cards is obtained in processing block 711.”).

With regard to claim 13, Garney in view of Yamauchi teaches all the limitations of claim 8 as described above. Garney further teaches wherein the removable media device is a multiscard removable media device (Figure 2: Removable Media Device 201 having Removable Media 211 and 213); and wherein the controller reads file structures of all inserted removable media and assembles them into a single file structure (Column 9 Line 6: "Device driver information block header 305, comprises information used for linking the device driver with computer system processing logic." Column 9 Line 16: "the device driver stub code image 307 is read from card memory area 303 and transferred into an area of computer system memory 102 set aside for device driver stubs. The device driver stub code is then executed by the processor of the computer system from computer system random access memory." Column 10 Line 2: "Knowing the location and size of the code and data areas for the device driver stub, operating system logic within the computer system can transfer the device driver stub code and data areas from the feature card into computer system random access memory.").

Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garney (US Patent 5412798) in view of Yamauchi et al. (US Patent 5661823), and further in view of Edmondson (US Patent 3619585).

With regard to claim 4, Garney in view of Yamauchi teaches all the limitations of claim 1 as described above. Garney in view of Yamauchi does not teach the repeated read attempts in response to an error as described in claim 4. Edmondson teaches wherein checking whether a characteristic feature of the at least one removable medium

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has changed is performed repeatedly in case an error status has been detected (Abstract: "If an error is detected while reading data from a particular location in a memory, that same location is automatically reread a given number of times. If an error does not occur during the reread cycles, the program continues and the succeeding memory locations are read in normal sequence"). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have modified the method as disclosed by Garney in view of Yamauchi with the repeated read attempts in response to an error as taught by Edmondson since "manually reinterrogating the machine's ROM is uneconomical" and "it is more desirable to have the reinterrogation performed automatically" (Edmondson Column 1 Line 24).

With regard to claim 11, Garney in view of Yamauchi teaches all the limitations of claim 8 as described above. Garney in view of Yamauchi does not teach the repeated read attempts in response to an error as described in claim 11. Edmondson teaches wherein the controller checks whether a characteristic feature of the removable medium has been changed is repeated in case an error status has been detected (Abstract: "If an error is detected while reading data from a particular location in a memory, that same location is automatically reread a given number of times. If an error does not occur during the reread cycles, the program continues and the succeeding memory locations are read in normal sequence"). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have modified the apparatus as disclosed by Garney in view of Yamauchi with the repeated read attempts

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in response to an error as taught by Edmondson since “manually reinterrogating the machine's ROM is uneconomical” and “it is more desirable to have the reinterrogation performed automatically” (Edmondson Column 1 Line 24).

Response to Arguments

Applicant's arguments, see Pages 5-15, filed 6/10/2011, with respect to the rejections under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

With respect to applicant's arguments that the features of Claims 1-6 and 8-13 are not taught by the cited prior art, Examiner respectfully disagrees and refers applicant to the rejection of the instant claims as discussed supra with respect to the same.

In response to applicant's argument regarding Claim 1 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the current loading status is kept and *no further processing is performed*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to Applicant's further argument regarding Claim 1 that Garney in view of Yamaguchi does not teach, “checking whether a characteristic feature of the at least one removable medium loaded in the removable media device has changed, if the

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type of user input is related to the removable media device”, Examiner respectfully disagrees.

The Examiner would like to note that the Garney reference discloses “checking whether a characteristic feature of the at least one removable medium loaded in the removable media device has changed,” in Column 14 Line 58 which recites, “Decision block 809 tests whether or not the device driver stub for the newly installed card still resides in the computer system RAM *based on the device driver stub unique identification*” (emphasis added), as discussed supra. The Applicant has noted that the device driver in Garney is not loaded in the removable media device but rather in the computer system RAM, Examiner respectfully disagrees. While the device driver stub is in fact loaded in to the computer system RAM it is also loaded in to the removable media device itself, as can be seen in Figure 3 of Garney which shows Device Driver Stub Code Image 307.

Further, the Examiner would like to note that the Yamaguchi reference discloses “checking whether the at least one removable medium loaded in the removable medium device has changed, if the type of user input is related to the removable media device,” in Column 44 Line 67 which recites, “Pre-processing ... necessary for input and output of data with the memory card 400 and card type connector 504 ... [including] confirmation of ... card type connector 504 ... are automatically ... confirmed by the CPU before execution of data transfer,” as discussed supra. Further to emphasize that such preprocessing is subsequent to user input which is related to the removable media device, see Figure 90 showing ‘Retrieval’, i.e. data transfer, processing as it relates to

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Figure 83A showing the CPU operation processing in a data transfer. Still Further to emphasize, Column 48 Line 26: "FIG. 83A ... showing the operation processing of the CPU in data transfer. *When started* (step S143) *by receiving data transfer request*, the CPU judges, in step S144, what are the transfer source and transfer destination devices ... and in step S145, *pre-processing* such as settings necessary for the transfer source and transfer destination device *is executed*, and the transfer source and transfer destination devices are connected to the data bus and control bus in step S146" (emphasis added).

The instant disclosure as originally filed does not appear to enable one of ordinary skill in the art at the time of the invention to make and/or use an invention that operates differently than the originally disclosed "checking whether a characteristic feature of the at least one removable medium loaded in the removable media device has changed, if the type of user input is related to the removable media device"; as disclosed in Figure 10 and the related text of the instant specification.

Accordingly, the Examiner has reasonably interpreted the method of "checking whether a characteristic feature of the at least one removable medium loaded in the removable media device has changed, if the type of user input is related to the removable media device" to be the method of checking a unique identification as part of a pre-processing routine subsequent to user input related to a removable media device which Garney in view of Yamaguchi discloses.

Further, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Examiner would like to again note that the Garney reference has been employed to disclose the claim limitations regarding the current status of a removable media device, while the Yamaguchi reference has been employed to disclose the claim limitations regarding user input.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS SIMONETTI whose telephone number is (571)270-7702. The examiner can normally be reached on Monday-Thursday 7:30AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Ellis can be reached on (571)272-4205. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/N. S./
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July 25, 2011

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